

**Comments on SV-CWCM QAPP Field Modification FM-130418 (High Flow Sampling)**

**Date: 10 May 2013**

<b>Comment Number</b>	<b>Page Reference</b>	<b>Comment</b>	<b>CPG Response</b>
1	General Comment	The field modification is associated with the SV-CWCM QAPP dated July 2012 (Version 3). Please distribute the latest version of the QAPP; it does not appear to be posted on Sharepoint.	Rev 3 of the SV CWCM QAPP has been posted to the EPA Sharepoint site. <a href="http://passaic.sharepointspace.com/members/CPG%20Planning/Planning%20Documents/20120717_CWCM-sv_QAPP_Rev3_Final.zip">http://passaic.sharepointspace.com/members/CPG%20Planning/Planning%20Documents/20120717_CWCM-sv_QAPP_Rev3_Final.zip</a>
2	Field Modification Form, page 1, "Tributary Sampling," second paragraph	The field modification for tributary sampling applies to the Second and Third River stations. As stated in Attachment 1, please include the following sentence in the field modification form itself: "The Saddle River is sampled from a bridge; no modification to the Saddle River sampling plan is necessary during high flows."	The field modification will be changed and the language from the Attachment cited in the comment will be added.
3	Field Modification Form, page 1, "Newark Bay Sampling," first paragraph	The field modification proposes a 24-hour delay in sampling Newark Bay locations; however, the proposed modification is ambiguous on the exact timing of the sampling. Please revise proposed QAPP language to be consistent with the Attachment 1 wording, which states that the "The length of this delay depends on the peak flows at Dundee Dam, and will most likely be approximately 24 hours from peak at Dundee." Please identify decision points and criteria for the timing of the delay.	The field modification will be changed and the language from the Attachment cited in the comment will be added.  The decision points and timing will be added. The delay will be based on the predicted peak flow at Dundee Dam, within 500 cfs.
4	Field Modification Form, page 1, "Newark Bay Sampling," second paragraph	The proposed QAPP language is "Samples to be collected spaced throughout the predicted solids signal from the LPR; two on rising limb, one near peak, one on falling limb of signal." Please clarify how the planned duration time and spacing of samples will be determined (will it be equivalent to the Lower Passaic River sampling, just off-set by 24 hours, or will it be model-predicted based on the storm flow conditions at Dundee Dam?).	The timing of the samples will be based on the outputs from the model. There will be two on the predicted rise in the signal, one at predicted peak, and one on the falling limb of the signal.  The field modification will be modified as such.

5	Field Modification Form, page 1, "Newark Bay Sampling," second paragraph	For clarity, please briefly summarize the proposed changes to the Hackensack River, Arthur Kill, and Kill Van Kull sampling in the field modification form.	There are no proposed changes in the sampling at Arthur Kill, Kill van Kull, or the Hackensack River. The field modification will indicate this.
6	Attachment 1, "Tributaries," page 1, second paragraph	Please edit fourth and fifth sentences to read "USEPA and their modeling team <u>disagreed that the tributary analyte suite should be limited to physical parameters, and they supported the "bottle dip" method, because controlling false positives due to atmospheric contamination was of reduced consequence during high flow events that are accompanied by heavy rains and significant run-off into the water bodies to be sampled. Since AECOM maintained that sampling should be conducted with ultra-clean tubing and in-line filters, AECOM needed to develop a safe means of sampling ....</u> "	The language proposed by EPA will be added to the Attachment, with one additional statement (underline/italics): "USEPA and their modeling team disagreed that the tributary analyte suite should be limited to physical parameters, and they supported the "bottle dip" method, because controlling false positives due to atmospheric contamination was of reduced consequence during high flow events that are accompanied by heavy rains and significant run-off into the water bodies to be sampled. Since AECOM maintained that sampling should be conducted with ultra-clean tubing and in-line filters <u>consistent with the other elements of the SV CWCM sampling program</u> , AECOM needed to develop a safe means of sampling ...."
7	Attachment 1, "Newark Bay," page 2, numbered list after second paragraph	It is assumed that item no. 2 refers the number of samples at each location (top and bottom) versus item no. 1, which clearly refers to the number of spatial locations to be sampled in the bay, although it is not clear from the text. In the paragraph that follows the list, please revise first sentence to read "... it was decided that all locations <u>(including 2 sampling depths per location)</u> in the NBSA in the SV QAPP should be collected."	The text of Attachment 1 will be modified as indicated to clarify that, to the extent, possible two depths per location are sampled. When the water is less than 7 feet deep, only depth (mid-depth) is sampled. For past events, AECOM has written nonconformance reports for stations and samples where this has occurred, and included in the Daily Report emails.
8	Attachment 1, "Newark Bay," page 2	Data from the Spring 2010 PWCM deployment should be included in the evaluation of the response in Newark Bay to high-flow events in the Passaic River.	These data were evaluated and are discussed in Attachment 1 to the field modification (page 2, "Newark Bay", fourth paragraph). The data were inconclusive.

9	Attachment 1, "Newark Bay," page 2	Additional information about the tracer simulation (e.g., duration and temporal variation of the tracer release) should be included with the evaluation of the response in Newark Bay to high-flow events in the Passaic River.	The tracer simulations were performed over a typical spring-neap cycle. A 30-day period starting July 22, 1996 was chosen to encompass a representative spring-neap cycle, and the hydrodynamic model inputs developed by EPA for this period were used for the tracer simulations. The hydrodynamic conditions for the tracer simulations were initialized using the output (salinity, temperature, water depths, and velocities) from a long-term hydrodynamic simulation starting in September 1994. The discharge at Dundee Dam was maintained constant during the tracer simulation. The tracer release at Dundee Dam was restricted to 1 hour, released at the start of the ebb tide, and with constant tracer concentration of 30 mg/L. Transport during spring tides was examined with a tracer release on July 30, and transport under neap tides was examined with a tracer release on August 8.
10	Attachment 1, "Newark Bay," page 3, item no. 1	Please clarify that sampling in Arthur Kill and Kill Van Kull (which occurs tidally) is proposed to occur during the specified tides that are temporally closest to the actual Newark Bay sampling events (and not the preceding high flow sampling on the Lower Passaic River).	Sampling in the Arthur Kill and Kill van Kull will be completed during the sampling in Newark Bay, likely near or shortly after the predicted signal peak. The actual sample times will depend on the times of the tides. The text of Attachment 1 will be revised to indicate this.